

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004581**Date Inspected:** 09-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhao Chen Sun and Sun Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and SAS Tower Fabrication**Summary of Items Observed:**

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

**Bay 1: OBG Sub assembly**

QA Inspector J. Lizardo randomly observed ZPMC welding utilizing the dual process WPS-B-T-2342-U1 (U-rib)-4 welding procedure specification for closed rib welding for Production Panel DP421-001 weld joints 003/004 and 007/008 U-rib Partial Joint Penetration (PJP) welds in Bay #1. ZPMC welding personnel performed gantry mounted machine #1, Gas Metal Arc Welding (GMAW) for the root pass. ZPMC welders performing the task were ID #201840/059400 for 003/004, and ID #059403/201788 for 007/008. This QA observed ABF/QA and ZPMC/CWI Sun Wei monitoring welding parameters.

**Bay 2: Plate Cutting, Rolling, Machining**

This QA Inspector observed 2-75mm thick plate marked P555 and P593 for tower double diaphragm web plate being set-up at the machining table for machining. No Caltrans job at the cutting table and rolling machine was seen idle.

**Bay 4: Tower Diaphragm**

The QA Inspector randomly observed ZPMC Welders ID #066179, ID # 066456, ID #066459 and ID #066457

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utilizing the Shielded Metal Arc Welding (SMAW) Process in the 3G (Vertical Groove) Position with Excalibur E9018M H4R, 4.8mm diameter electrode following ZPMC WPS WPS-B-T-3313-Tc-P5 to weld tower double diaphragm PJP fill pass on 60mm thick stiffener plate to 75mm tower double diaphragm web plate tee joint ESD1-SA424A/B weld joints 3, 4, 5 and 6. The QA Inspector randomly observed ZPMC CWI Zhao Chen Sun monitoring weld parameters.

This QA observed four ZPMC welders ID #068250, ID #066398, ID #037779 and ID #053753 SMAW (2G) PJP welding cover pass on 75mm web plate to tower double diaphragm (bottom) ESD1-SA318B/B weld joints 1 and 2. ZPMC welders were noted utilizing Excalibur E9018M H4R, 4.8mm diameter electrode. The QA Inspector randomly observed ZPMC CWI Zhao Chen Sun monitoring weld parameters.

This QA performed 10% MT on the following OBG side plates for green tagging;

- a)SP-317-001-015~028 057~070 – deemed acceptable
- b)SP726-001-054~065 - deemed acceptable
- c)SP157-001-013~024 - deemed acceptable
- d)SP580-001-054~065 - deemed acceptable

### Summary of Conversations:

No significant conversation occurred.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lizardo,Joselito	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer

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